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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,855	02/20/2004	Werner Doetsch	038715.53046US	1653

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EXAMINER
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SAYALA, CHHAYA D

ART UNIT	PAPER NUMBER
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1761

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/781,855

Applicant(s)

DOETSCH ET AL.

Examiner

C. SAYALA

Art Unit

1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

### DETAILED ACTION

The claims have been re-numbered because, there are two claims numbered as "3". Claims pending are 1-11.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 63270612 or RU 2073436.

Each of these patents teaches a composition containing alkaline earth peroxide and boron.

In '612, the ratios compare with the peroxide content and taken with the boron content of the specification compare well with the instant invention.

In '436, the amounts of copper peroxide and boron are given as being 40-99.9% by wt. and 0.2-60.0 % by wt. respectively.

2. Claims 1-3 and 8-11 are under 35 U.S.C. 102(b) as being anticipated by GB 1580248.

The patent teaches treating sugar beet seeds with calcium peroxide, 0.01 and 90.0% by weight, for improving the quality of the beet. The boron additive is added in

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an amount 0 to 10%, preferably 0 to 5% by wt. (see page 2, lines 10-25; page 1, lines 25-30).

3. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 1575792.

The GB patent teaches that to improve the stability of peroxygenated compounds, boron compounds are added. These peroxygenated compounds are prepared by reacting salts or corresponding solid oxides with an aqueous solution of hydrogen peroxide. They are then coated with orthoboric, metaboric or tetraboric acids. See col. 1, lines 40-45; col. 2, lines 45-53 at page 1. Also lines 85-90. Page 2, lines 10-15. The boric acid is sprayed onto the peroxygenated compounds and then the water is evaporated at temperature lower than 100° C. See page 2, col. 2, lines 95-130. See claims 1-24, where the alkaline earth peroxygenated compounds are coated with boric acid. It would have been obvious to treat the peroxygenated of the prior references also by treating them with boric acid, which adds stability to the peroxygenated compounds.

***Claim Rejections - 35 USC § 102/Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 61033104.

The patent teaches magnesium peroxide and boron. The rejection is being made under both statutes because a translation of the reference is not immediately on hand.

***Claim Rejections - 35 USC § 103***

5. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larson et al. (US Patent 5567221) 103 in view of "Essential Plant Nutrients" (3/2001).

The claims combine alkaline earth peroxide (calcium peroxide) with boron (claim 11 and 12). No amounts are given. However, to determine amounts required for the oxidant property that would correspond to allowable amounts of calcium or magnesium and the quality or type of soil, would have been obvious to one of ordinary skill in the art at the time the invention was made. As for amounts of boron, conventionally, amount of this micronutrient is generally added up to about 5%. See the article "Essential Plant Nutrients" at page 5, and to optimize amounts within this range would have been within the ambit of ordinary skill.

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6. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doetsch et al. (US Patent 6193776) or Farone et al. (US Patent 5395419) in view of GB 1575792.

Doetsch et al. teach a homogeneous calcium/magnesium peroxide with an active oxygen content of 10-18% by wt. Farone et al. also teach treating plant media with calcium or magnesium peroxide, which delivers oxygen. See abstract, col. 14, lines 30-43. Both patents do not teach the boron.

The GB patent teaches that to improve the stability of peroxygenated compounds, boron compounds are added. These peroxygenated compounds are prepared by reacting salts or corresponding solid oxides with an aqueous solution of hydrogen peroxide. They are then coated with orthoboric, metaboric or tetraboric acids. See col. 1, lines 40-45; col. 2, lines 45-53 at page 1. Also lines 85-90 and page 2, lines 10-15. The boric acid is sprayed onto the peroxygenated compounds and then the water is evaporated at temperature lower than 100° C. See page 2, col. 2, lines 95-130. See claims 1-24, where the alkaline earth peroxygenated compounds are coated with boric acid. It would have been obvious to treat the peroxygenated of the prior references also by treating them with boric acid, which adds stability to the peroxygenated compounds.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to treat the peroxygenated compounds of the primary references also by treating them with boric acid which adds stability to the peroxygenated compounds.


**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. SAYALA whose telephone number is 571-272-1405.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
C. SAYALA  
Primary Examiner  
Group 1700.